GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 959
TO BE ANSWERED ON 21.12.2017

SETTING UP OF RENEWABLE ENERGY PROJECTS

959. SHRI ABHISHEK SINGH:

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a): the details of renewable energy resources from which energy is being generated by the Union Government and the quantum of power generated by them during the last three years and the current year, State-wise; and

(b): the details of renewable energy projects set up or proposed to be set up by the Union Government for sustainable development, State-wise?

ANSWER

THE MINISTER OF STATE FOR POWER AND NEW & RENEWABLE ENERGY (I/C)
(SHRI R. K. SINGH)

(a): The major renewable energy sources from which energy is being generated are Solar, Wind, Small Hydro Power and Biomass. The source-wise, year-wise and state-wise generation of electricity from such sources during the last three years and current year are given at **Annexure-I.**

(b): Renewable energy projects of 62.05 GW of cumulative capacity have already been set up in the country upto November 2017 for sustainable development. The source wise and state wise details of grid connected renewable energy installed capacity is given at **Annexure II.**

The Government has set a target for installing 175 GW of Renewable Energy capacity by the year 2022. Out of 175 GW, 100 GW would be solar, 60 GW would be wind, 10 GW would be Biomass and 5 GW would be Small Hydro capacity.

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Annexure-I

ANNEXURE-I REFERRED TO IN REPLY TO LOK SABHA UNSTARRED QUESTION NO. 959 Part (a) TO BE ANSWERED ON 21/12/2017

State-wise and Source-wise power generation from various renewable energy sources during the last three years (2014-15 to 2016-17) and the current year.

						(Million Units)
S. No	**State**	**Wind**	**Solar**	**Small Hydel**	**Bio-Power**	**Total**
Year 2014-15						
1.	CHANDIGARH	0	2.23	0	0	2.23
2.	DELHI	0	3.18	0	113.44	116.63
3.	HARYANA	0	10.36	280.96	179.36	470.69
4.	HP	0	0	1685.08	0	1685.08
5.	J & K	0	0	313.23	0	313.23
6.	PUNJAB	0	129.89	543.53	485.87	1159.29
7.	RAJASTHAN	4053.85	1259.19	5.3	278.24	5596.57
8.	UTTAR PRADESH	0	20.13	30.3	3090.27	3140.7
9.	UTTARAKHAND	0	11.63	565.25	87.5	664.38
10.	NTPC	0	22.9	0	0	22.9
11.	OIL INDIA LTD	117.78	9.14	0	0	126.93
12.	CHHATTISGARH	0	13.54	8.4	1044.35	1066.29
13.	GOA/NTPC RAJGARH	0	62.94	0	0	62.94
14.	GUJARAT	5660.09	1474.56	47.13	40.48	7222.27
15.	MADHYA PRADESH	592.25	562.29	196.71	76.26	1427.51
16.	MAHARASHTRA	6804.8	349.32	275.82	2853.99	10283.93
17.	DADRA & NAGAR HAVELI	0	0.03	0	0	0.03
18.	DAMAN & DIU	0	0.15	0	0	0.15
19.	ANDHRA PRADESH	1675.82	159.77	274.61	600.85	2711.06
20.	TELANGANA	0	138.12	60.43	604.31	802.86
21.	KARNATAKA	4658.1	100.39	1845.75	3090.66	9694.9
22.	KERALA	58.4	0	570.53	0.71	629.64
23.	PUDUCHERRY/NTPS RAMAGUNDAM	0	15.62	0	0	15.62
24.	TAMIL NADU	10147.06	158.75	226.81	1369.79	11902.39
25.	LAKSHADWEEP	0	5.13	0	40.96	46.09
26.	ANDAMAN & NICOBAR	0	0	0.47	0	0.47
27.	BIHAR	0	0	29.01	180.11	209.13
28.	JHARKHAND	0	8.32	0	0	8.32
29.	ODISHA	0	44.94	284.88	0	329.82
30.	SIKKIM	0	0	20.88	0	20.88
31.	WEST BENGAL	0.16	7.07	325.43	1220.97	1553.63
32.	DAMODAR VALLEY CORPORATION	0	0	146.86	0	146.86
33.	NTPC ANDMAN+TALCHAR	0	18.79	0	0	18.79
34.	ARUNACHAL PRADESH	0	0	51.94	0	51.94
35.	ASSAM	0	9.65	54.87	0	64.52
36.	MANIPUR	0	0	0	0	
37.	MEGHALAYA	0	0	66.94	0	66.94
38.	MIZORAM	0	0	34.86	0	34.86
39.	NAGALAND	0	0	84.14	0	84.14
40.	TRIPURA	0	0	29.37	0	29.37
41.	NEEPCO	0	0.98	0	0	0.98

						(Million Units)
S. No	**State**	**Wind**	**Solar**	**Small Hydel**	**Bio-Power**	**Total**
	TOTAL	**33768.3**	**4599.02**	**8059.5**	**15358.11**	**61784.93**
Year 2015-16						
1	CHANDIGARH	0	3.4	0	0	3.4
2	DELHI	0	4.11	0	124.87	128.97
3	HARYANA	0	114.96	992.65	235.55	1343.15
4	HP	0	0	1921.77	0	1921.77
5	J & K	0	0	304.79	0	304.79
6	PUNJAB	0	380.57	490.08	603.54	1474.2
7	RAJASTHAN	4583.59	1766.1	5.06	245.49	6600.24
8	UTTAR PRADESH	0	89.75	29.73	3082.01	3201.49
9	UTTARAKHAND	0	5.87	605.69	91.86	703.42
10	NTPC (DADRI/FARIDABAD/ UNCHAHAR)	0	42.41	0	0	42.41
11	OIL INDIA LTD	183.77	9.9	0	0	193.67
12	CHHATTISGARH	0	52.7	30.41	1119.32	1202.42
13	NTPC RAJGARH	0	81	0	0	81
14	GUJARAT	6446.58	1497.6	36.27	23.28	8003.73
15	MADHYA PRADESH	1558.43	1105.28	118.54	128.17	2910.42
16	MAHARASHTRA	6121.34	638.76	562.77	3433.71	10756.58
17	DADRA & NAGAR HAVELI	0	0.5	0	0	0.5
18	DAMAN & DIU	0	4.25	0	0	4.25
19	ANDHRA PRADESH	2013.04	282.67	103.1	707.8	3106.61
20	TELANGANA	0	402.51	48.69	576.7	1027.9
21	KARNATAKA	4797.95	187.69	1483.48	3591.92	10061.03
22	KERALA	51.45	7.38	486.99	72.96	618.78
23	PUDUCHERRY/ NTPC (RAMAGUNDAM)	0	16.02	0	0	16.02
24	TAMIL NADU	7273.23	507.18	214.02	1337.05	9331.47
25	LAKSHADWEEP	0	1.02	0	0	1.02
26	ANDAMAN & NICOBAR	0	6.26	12.46	0	18.72
27	BIHAR	0	6.39	48.69	110.02	165.11
28	JHARKHAND	0	19.77	0	0	19.77
29	ODISHA	0	150.73	263.24	20.48	434.45
30	SIKKIM	0	0	41.93	0	41.93
31	WEST BENGAL	0	6.28	157.57	1444.3	1608.15
32	DVC	0	0	118.26	0	118.26
33	NTPC ANDMAN/ TALCHER	0	18.91	0	0	18.91
34	ARUNACHAL PRADESH	0	0.22	18.22	0	18.44
35	ASSAM	0	31.6	59.34	0	90.94
36	MANIPUR	0	0	0	0	0
37	MEGHALAYA	0	0	65.96	0	65.96
38	MIZORAM	0	0	27.62	0	27.62
39	NAGALAND	0	0	88.73	0	88.73
40	TRIPURA	0	0	18.47	0	18.47
41	NEEPCO	0	6.15	0	0	6.15

						(Million Units)
S. No	**State**	**Wind**	**Solar**	**Small Hydel**	**Bio-Power**	**Total**
	Total	**33029.4**	**7447.92**	**8354.51**	16949.03	**65780.9**
Year 2016-17						
1.	CHANDIGARH	0	13.16	0	0	13.16
2.	DELHI	0	5.68	0	139.05	144.73
3.	HARYANA	0	19.7	238.8	191.04	449.54
4.	HP	0	0	2015.58	0	2015.58
5.	J & K	0	0.77	325.36	0	326.12
6.	PUNJAB	0	909.2	497.99	742.31	2149.49
7.	RAJASTHAN	5562.52	2131.61	6.76	272.97	7973.85
8.	UTTAR PRADESH	0	230.95	27.83	3379.48	3638.26
9.	UTTARAKHAND	0	37.77	850.5	110.92	999.19
10.	NTPC DADRI/FBD/ UNCHAHAR/SINGRAULI	0	74.9	0	0	74.9
11.	OIL INDIA LTD	201.61	25.59	0	0	227.2
12.	CHHATTISGARH	0	120.91	44.21	1281.1	1446.22
13.	NTPC RAJGARH	0	82.21	0	0	82.21
14.	GUJARAT	7720.01	1738.28	27.54	12.16	9497.99
15.	MADHYA PRADESH	3563.17	1366.1	224.46	114.94	5268.67
16.	MAHARASHTRA	7490.75	577.83	609.58	2614.54	11292.7
17.	DADRA & NAGAR HAVELI	0	1.31	0	0	1.31
18.	DAMAN & DIU	0	14.43	0	0	14.43
19.	ANDHRA PRADESH	3187.85	1599.78	168.75	526.88	5483.26
20.	TELANGANA	211.93	1337.9	52.62	397.42	1999.89
21.	KARNATAKA	6058.65	524.67	1294.25	1708.11	9585.68
22.	KERALA	72.59	26.52	462.38	1.23	562.72
23.	NTPC RAMAGUNDAM	0	350.53	0	0	350.53
24.	TAMIL NADU	11935.26	1898.34	93.79	1226.48	15153.87
25.	LAKSHADWEEP	0	1.59	0	0	1.59
26.	PUNDUCHERRY	0	0.34	0	0	0.34
27.	ANDAMAN & NICOBAR	0	6.17	13.86	0	20.03
28.	BIHAR	0	109.18	21.96	161.38	292.53
29.	JHARKHAND	0	38.47	0	0	38.47
30.	ODISHA	0	210.81	239.05	57.85	507.71
31.	SIKKIM	0	0	35.78	0	35.78
32.	WEST BENGAL	0	14.96	120.86	1433.95	1569.77
33.	DVC	0	0.01	14.08	0	14.09
34.	NTPC ANDAMAN/ TALCHER	0	20	0	0	20
35.	ARUNACHAL PRADESH	0	0.14	27.29	0	27.43
36.	ASSAM	0	2.69	11.47	0	14.15
37.	MANIPUR	0	0.01	0	0	0.01
38.	MEGHALAYA	0	0	59.1	0	59.1
39.	MIZORAM	0	0	49.62	0	49.62
40.	NAGALAND	0	0	92.73	0	92.73
41.	TRIPURA	0	0	46.47	0	46.47
42.	NEEPCO	0	6.89	0	0	6.89
	TOTAL	**46004.34**	**13499.4**	**7848.91**	**14449.2**	**81548.21**
Year 2017-18 (Ist APRIL'2017- 31st OCT'2017)						
1	Chandigarh	0	5.09	0	0	5.089
2	Delhi	0	8.42	0	134.65	143.0758
3	Haryana	0	38.3	161.76	125.71	325.774
4	HP	0	0	1640.9	0	1640.9

						(Million Units)
S. No	**State**	**Wind**	**Solar**	**Small Hydel**	**Bio-Power**	**Total**
5	J & K	0	0	244.86	0	244.8574
6	Punjab	0	919.07	109.02	602.81	1630.9
7	Rajasthan	4219.33	1895.92	1.52	195.01	6311.781
8	Uttar Pradesh	0	298.87	16.81	827.94	1143.612
9	Uttarakhand	0	147.95	400.79	25.31	574.05
10	NTPC Dadri/FBD/Unchahar/Singrauli/Bhadla	0	275.04	0	0	275.0423
11	Oil India Ltd	161.17	15.16	0	0	176.3301
12	Chhattisgarh	0	65.68	16.15	591.9	673.7177
13	NTPC Rajgarh/Raojmal/Mandsaur	12.85	159.56	0	0	172.4153
14	Gujarat	6664.99	1110	24.31	14.85	7814.15
15	Madhya Pradesh	3060.41	920.41	63.38	37.52	4081.701
16	Maharashtra	5336.74	518.04	345.43	485.71	6685.917
17	Dadra and Nagar Haveli	0	2.73	0	0	2.725843
18	Daman & Diu	0	10.61	0	0	10.61
19	Andhra Pradesh	4715.18	1936.54	42.64	148.2	6842.567
20	Telangana	137.89	1677.84	34.79	159.02	2009.543
21	Karnataka	5478.39	874.25	1254.83	313.38	7920.852
22	Kerala	71.24	28.33	431.03	0	530.5984
23	NTPC Ramagundam /Anantapuram	0	242.72	0	0	242.7162
24	Tamil Nadu	10080.93	1574.45	70.86	433.48	12159.73
25	Lakshadweep	0	1.06	0	0	1.059047
26	Punducherry	0	0.9	0	0	0.901963
27	Andaman & Nicobar	0	3.55	7.98	0	11.5298
28	Bihar	0	78.07	6.45	14.12	98.63652
29	Jharkhand	0	11.15	0	0	11.15347
30	Odisha	0	124.37	210.16	16.53	351.0643
31	Sikkim	0	0	26.52	0	26.52033
32	West Bengal	0	11.15	112.29	810.99	934.4229
33	DVC	0	0.04	8.36	0	8.3975
34	NTPC Andaman/ Talcher	0	11.01	0	0	11.0144
35	Arunachal Pradesh	0	0.07	0.4	0	0.46866
36	Assam	0	3.52	10.07	0	13.58532
37	Manipur	0	0.03	0	0	0.032643
38	Meghalaya	0	0	45.67	0	45.67
39	Mizoram	0	0	39.74	0	39.744
40	Nagaland	0	0	59.31	0	59.309
41	Tripura	0	0	25	0	24.998
42	NEEPCO	0	3.68	0	0	3.67813
	Total	**39939.1**	**12973.6**	**5411.04**	**4937.11**	**63260.84**

Source: Central Electricity Authority (CEA)
Note: Data as received from State Load Dispatch Centre (SLDC) of the respective states of the electricity department.

Annexure-II

ANNEXURE-II REFERRED TO IN REPLY TO LOK SABHA UNSTARRED QUESTION NO. 959
Part (b) TO BE ANSWERED ON 21/12/2017

Source-wise and State-wise installed capacity of grid interactive renewable power
(As on 30.11.2017)

S. No.	STATES / Uts	Small Hydro Power	Wind Power	Bio-Power		Solar Power		Total Capacity
				BM Power/Cogen.	Waste to Energy	Ground Mounted	Roof Top	
		(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)
1	Andhra Pradesh	241.98	3808.75	378.20	58.16	2142.87	22.34	6652.30
2	Arunachal Pradesh	104.605				0.27	4.12	109.00
3	Assam	34.11				10.00	1.11	45.22
4	Bihar	70.70		113.00		138.00	2.61	324.31
5	Chhattisgarh	76.00		228.00		166.35	7.65	478.00
6	Goa	0.05				0.00	0.52	0.57
7	Gujarat	16.60	5518.77	65.30		1221.52	82.59	6904.78
8	Haryana	73.50		96.40		129.80	74.05	373.75
9	Himachal Pradesh	842.11				0.00	1.48	843.59
10	Jammu & Kashmir	161.03				1.00	0.92	162.95
11	Jharkhand	4.05				16.65	4.67	25.37
12	Karnataka	1230.73	3793.10	1452.00	1.00	1716.5	84.35	8277.68
13	Kerala	213.02	51.50			50.00	19.95	334.47
14	Madhya Pradesh	86.16	2497.790	93.00	3.90	1167.73	17.13	3865.71
15	Maharashtra	347.37	4777.63	2065.00	12.72	379.25	142.63	7724.60
16	Manipur	5.45				0.00	1.33	6.78
17	Meghalaya	31.03				0.00	0.06	31.09
18	Mizoram	41.47				0.10	0.10	41.67
19	Nagaland	30.67				0.00	0.00	30.67
20	Odisha	64.625		50.40		76.06	3.45	194.54
21	Punjab	170.90		179.00	9.25	806.8	41.79	1207.74
22	Rajasthan	23.85	4281.72	119.30		2258.5	51.96	6735.33
23	Sikkim	52.11				0.00	0.01	52.12
24	Tamil Nadu	123.05	7912.50	878.00	8.05	1712.27	107.15	10741.02
25	Telangana		100.80	158.10		2963.33	26.74	3248.97
26	Tripura	16.01				5.00	0.00	21.01
27	Uttar Pradesh	25.10		1933.00	5.00	454.00	55.38	2472.48
28	Uttarakhand	209.320		73.00		230.80	15.63	528.75
29	West Bengal	98.50		300.00		16.62	23.22	438.34
30	Andaman & Nicobar	5.25				11.15	1.00	17.40
31	Chandigarh					5.04	13.85	18.89
32	Dadra & Nagar Haveli					0.00	0.48	0.48
33	Daman & Diu					10.00	0.39	10.39
34	Delhi				16.00	2.84	55.18	74.02
35	Lakshwadeep					0.75	0.00	0.75
36	Puducherry					0.03	0.08	0.11
37	Others		4.30			54.61		58.91
	Total (MW)	**4399.350**	**32746.860**	**8181.70**	**114.08**	**15747.84**	**863.92**	**62053.75**